

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Original) A piezo-electric actuator comprising:
 - a piezo-electric element having a piezo-electric body which is provided with at least two opposing surfaces, wherein the surfaces perform an expanding and contracting motion in accordance with a state of an electric field;
 - a constraint member for constraining the piezo-electric element on at least one of the two surfaces,
 - a supporting member disposed around the constraint member, and
 - a plurality of beam members each having both ends that are fixed to the constraint member and the supporting member, respectively, wherein each beam member has a neutral axis for bending in a direction substantially parallel with the constrained surface,
 - wherein the constraint member vibrates by vibration which is generated by constraining effect between the constraint member and the piezo-electric element, and is amplified by the beam members.
2. (Original) The piezo-electric actuator according to claim 1, wherein said beam members are straight beams.

3. (Currently Amended) The piezo-electric actuator according to ~~claim 1 or 2~~ claim 1, wherein said constraint member has a base for constraining said piezo-electric element, and a plurality of arms that extend from said base to constitute said beam members.

4. (Currently Amended) The piezo-electric actuator according to ~~any of claims 1 to 3~~ claim 1, wherein said constraint member is a second piezo-electric element which differs in vibrating direction from said piezo-electric body.

5. (Currently Amended) The piezo-electric actuator according to ~~any of claims 1 to 3~~ claim 1, wherein said piezo-electric element comprises a plurality of said piezo-electric bodies and a plurality of electrode layers for applying an electric field to said piezo-electric bodies, wherein each piezo-electric body and each electrode layer is alternately laminated.

6. (Currently Amended) The piezo-electric actuator according to ~~any of claims 1 to 5~~ claim 1, wherein said piezo-electric element is provided with an insulating layer on at least one of said two surfaces.

7. (Currently Amended) The piezo-electric actuator according to ~~any of claims 1 to 6~~ claim 1, wherein said piezo-electric element has a rectangular parallelepiped shape.

8. (Currently Amended) An acoustic element comprising:
the piezo-electric actuator according to ~~any of claims 1 to 7~~ claim 1; and

a vibrating film coupled to said piezo-electric actuator for radiating sound through vibration that is transmitted from said piezo-electric actuator.

9. (Original) The acoustic element according to claim 8, further comprising a vibration transmitting member sandwiched between said piezo-electric actuator and said vibrating film.

10. (Currently Amended) An electronic device comprising the piezo-electric actuator according to ~~any of claims 1 to 7~~ claim 1.

11. (Currently Amended) An electronic device comprising the acoustic element according to ~~claim 8 or 9~~ claim 8.

12. (Currently Amended) An acoustic apparatus comprising a plurality of said acoustic elements according to ~~claim 8 or 9~~ claim 8 which have resonance frequencies different from each other for smoothing frequency response of sound pressure.

13. (Original) An electronic device comprising said acoustic apparatus according to claim 12.